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| 09/872,736 | 06/01/2001 | John K. Overton | 10406/49 | 3927 |

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EXAMINER

DELGADO, MICHAEL A

ART UNIT PAPER NUMBER

2144

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--|---------------------------------------|--|
| Office Action Summary | Application No. 09/872,736 | Applicant(s) OVERTON ET AL. | |
| | Examiner Michael S. A. Delgado | Art Unit 2144 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-45 is/are pending in the application.
- 4a) Of the above claim(s) 1-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/14/01, 5/7/02, 8/13/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 02/22/2006 have been fully considered but they are not persuasive. In response to the argument that US Patent No. 6,466,980 by Lumelsky et al does not teach about managing specifically the location of information relevant to the identifier.

Lumelsky teaches about creating replica of objects, which are associated with their respective identifier (Fig 6a) (Col 8, lines 45-55) (Col 9, lines 30-45). These object are distributed across different servers in which the combine function of a replica directory service and a server directory service is used to determine where the objects were located amongst the different servers (Fig 6b) (Col 10, lines 30-45). This feature is consistent with the limitation as claimed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 24-26, 29-38 and 40-45 rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,466,980 by Lumelsky et al.

In claim 24, Lumelsky teaches about a method of scaling at least one of location server capacity and transaction rate capability in a system for storing and retrieving location information, the method comprising (Fig 4) (abstract) :

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providing a transfer protocol configured to transport identifier and location information, the location information specifying the location of information relevant to the identifier (Col 9, lines 15-20) (Col 9, lines 20-30);

providing a first location server storing location information formatted according to the transfer protocol (Col 9, lines 20-25);

receiving an identifier and a location relevant to the identifier at the first location server (Col 9, lines 20-25);

storing the received location in a location store at the first data location server, the location store comprising a plurality of identifiers, each identifier associated with at least one location, wherein the received location is associated with the received identifier in the location store (Fig 6) (Col 9, lines 35-45); and

transferring a portion of the identifiers and associated locations to a second data location server when a performance criterion of the first location server reaches a predetermined performance limit (Col 6, lines 33-43).

In claim 25, Lumelsky teaches about a method of claim 24, wherein receiving an identifier and a location comprises receiving the identifier and the location at the first location server from an application server, wherein the location comprises an address for the application server (Col 9, lines 50-60).

In claim 26, Lumelsky teaches about a method of claim 24, wherein receiving an identifier and a location comprises receiving the identifier and the location at the first location

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server from a physical object, wherein the identifier identifies the physical object and wherein the location comprises a geographic location for the physical object (Col 10, lines 10-30).

In claim 29, Lumelsky teaches about a method of claim 24, wherein transferring a portion of the identifier and location associations comprises:

identifying a portion of identifier and location associations on the first location server to be transferred to the second location server and identifying a data set state of the identified portion at an initial time (Col 24, lines 10-20);

copying a data set for the identified portion corresponding to the identified data set state from the first location server to the second location server and maintaining a second data set containing changes to the identified portion since the initial time (Col 24, lines 10-20);

identifying a data set state for the second data set (Col 24, lines 19-23);

ceasing operation of the first location server with respect to the identified portion and copying the second data set to the second location server, wherein the second data set corresponds to the identified data set state for the second data set (Col 20, lines 20-30) (Col 24, lines 10-20); and

initiating operation of the second location server for the identified portion of identifiers and location associations (Col 24, lines 10-20).

In claim 30, Lumelsky teaches about a method of claim 24, wherein the performance criterion comprises an amount of available persistent storage space in the first location server (Col 19, lines 40-45).

In claim 31, Lumelsky teaches about a method of claim 24, wherein the performance criterion comprises a transaction rate limit (Col 1, lines 45-55) (Col 10, lines 47-56).

In claim 32, Lumelsky teaches about a method of claim 24, wherein the transaction rate limit comprises a processor speed limit (Col 1, lines 45-55) (Col 10, lines 47-56).

In claim 33, Lumelsky teaches about a method of claim 24, wherein the transaction rate limit comprises a network connection bandwidth limit (Col 1, lines 45-55) (Col 10, lines 47-56).

In claim 34, Lumelsky teaches about a method of claim 24, further comprising transmitting a location server map from the first location server, the location server map comprising information identifying the second location server and a list of identifiers associated with the second location server (Fig 6) (Col 10, lines 20-30).

In claim 35, Lumelsky teaches about a method of claim 34, wherein the first and second location servers are part of a location server cluster comprising a plurality of location servers, and wherein transmitting the location server map comprises transmitting the location server map to each of the plurality of data location servers asynchronously (Fig 4) (Col 10, lines 35-45).

In claim 36, Lumelsky teaches about a method of claim 34, wherein transmitting a location server map comprises transmitting the location server map to a client in response to

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query received at the first location server from the client regarding an identifier that is not resident on the first location server (Col 24, lines 1-10).

In claim 37, Lumelsky teaches about a method of claim 24, wherein transferring a portion of the identifiers and associated locations to a second location server when a performance criterion of the first data location server reaches a predetermined performance limit further comprises monitoring the performance criterion and automatically transferring the portion of identifiers and associated locations when the first location server reaches the predetermined limit (Col 24, lines 10-20).

In claim 38, Lumelsky teaches about a database comprising;
a computer readable medium (Col 28, lines 20-25);
a plurality of index designations, each index designation representative of one of a plurality of identifiers, wherein each identifier uniquely identifies an entity (Fig 6) (Col 9, lines 35-45);

a plurality of locations, wherein each of the locations is associated with at least one of the plurality of index designations and represents a location of information relevant to an identifier represented by an index designation (Col 9, lines 35-45);

a location store stored in the computer readable medium, the location store comprising a table containing the plurality of index designations and associated locations (Fig 6); and

an indexing function stored in the computer readable medium, the indexing function operative to map each of the plurality of identifiers to a respective one of the plurality of index designations (Col 9, lines 35-45).

In claim 40, Lumelsky teaches about a database of claim 39, further comprising a front end in communication with the location store and indexing function, the front end operative to transport identifiers and associated locations via a transport protocol (Col 9, lines 15-25).

In claim 41, Lumelsky teaches about a database of claim 40, further comprising a buffer in communication with the front end, the buffer configured to maintain a log of each of a plurality of location store update transactions (Col 10, lines 20-30).

In claim 42, Lumelsky teaches about a database of claim 38, wherein the computer readable medium comprises at least one of RAM and a persistent storage device (Col 28, lines 20-30).

In claim 43, Lumelsky teaches about a database of claim 38, wherein the location store comprises a string store and wherein the plurality of locations comprise network address strings (Fig 6a).

In claim 44, Lumelsky teaches about a database of claim 43, wherein at least one of the network address strings comprises an address of a database in a network (Fig 6b).

In claim 45, Lumelsky teaches about a system for managing location information and providing location information to location queries, the system comprising (Fig 4):

a location server operating in accordance with a transfer protocol, the transfer protocol comprising instructions for manipulating an identifier and at least one location associated with the identifier, wherein the identifier uniquely specifies an entity and wherein each location specifies a location of data in a network pertaining to the entity, the location server containing location information corresponding to at least one entity and formatted according to the transfer protocol, and wherein the location of data for the location comprises an application server in communication with the network (Col 9, lines 15-20) (Col 9, lines 20-30); and

programming logic stored on the location server responsive to a location query identifying a desired entity to return a location message, the location message comprising all locations associated with the desired entity, wherein the location server returns the location message if the location server contains location information for the desired entity (Col 10, lines 20-30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 27-28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,466,980 by Lumelsky et al in view of US Patent No. 6,578,068 by Bowman-Amuah.

In claim 27 Lumelsky teaches all the limitation but fails to explicitly teach that the physical object comprises a vehicle. In Bowman-Amuah, the advantage of a delivery vehicle is used in the association of end-user (object) to applications (Col 23, lines 50-65).

The vehicle approach combined with the object method of Lumelsky (Col 9, lines 20-30) would improve the portability of the software thus makes it reusable.

It would have been obvious for some one of ordinary skill at the time of the invention to use an object comprising of a vehicle in order to take advantage of the portable feature

In claim 28, the use of a physical object comprises a portable telecommunications device is well known in the art as disclosed by Bowman-Amuah (Col 29, lines 44-50)

In claim 39, the use of an indexing function comprises a hash function is commonly used in object search and is well known in the art as disclosed by Bowman-Amuah (Col 191, lines 50-60).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,438,652 by Jordan et al , teaches about load balancing cooperating cache servers by shifting forwarded request.

US 6,711,408 by Raith, teaches about position assisted handoff within a wireless communications network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is (571) 272-3926. The examiner can normally be reached on 7.30 AM - 5.30PM.

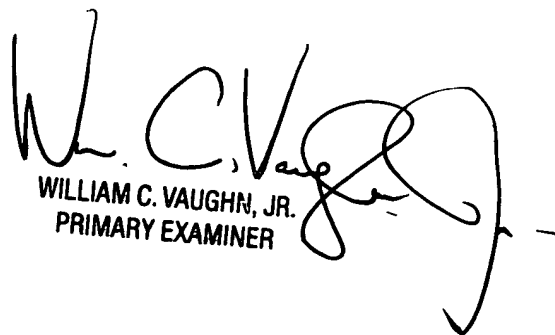
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn Jr. can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MD



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